FAA Facts

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HOW DOES THAT WORK?

AVIATION MAINTENANCE TECHNICIANS, SCHOOLS AND THE FAA

Properly trained and certificated (correct) airframe and powerplant mechanics are essential to aviation safety. They provide aircraft with the required maintenance at regular intervals, and they are also in the position to recognize and stop potential malfunctions before such issues become larger and potentially dangerous.

In addition to working on aircraft, airframe and powerplant mechanics also teach in certificated programs (see below), work as aviation inspectors, and provide valuable expertise in accident investigations. The growth of aviation as a whole means this field will expand in the future.

Definitions

Aviation maintenance technicians are certificated under Federal law, found under 14 CFR Part 65, Subpart D, of the Federal Aviation Regulations. You may find the regulations at **www.faa.gov**. Go to Regulations and Policies, click on Current Regulations.

To be eligible for a mechanic certificate and its associated ratings, a person must be at least 18 years old; be able to read, write and understand English; have passed all the prescribed tests within a period of 24 months; and comply with the sections that apply to the rating he or she seeks.

Ratings consist of powerplant (engines and associated systems) and airframe (the structure of the aircraft. Certificate holders can earn a separate rating that gives them privileges them in both areas. A certificate holder is limited to performing or supervising maintenance in the area in which he or she is certificated for. In addition, a certificate holder must maintain proficiency to remain in accordance with the regulations (14 CFR 65.83)

Tests consist of written, oral and practical exams, and are overseen by Designated Mechanic Examiners (DME) of the FAA. Proof of passing grade must be given to the FAA within a designated period of time in order for the appropriate certificate to be issued.

The Process

Students seeking these ratings must attend a FAA certificated Aviation Maintenance Technician program. These programs meet requirements as outlined in 14 CFR Part 147.

Certificated programs may be found in Advisory Circular (AC) 147-2KK (most recent as of 4-19-2005). You may see this Advisory Circular by going to www.faa.gov, going to Advisory Circulars (under the quick find), and then click on Regulation and Certification Advisory Circulars.

These programs can be found in high schools or vocational/technical programs. Some high schools prepare students for entry into a certificated program.

Certificated programs undergo a rigorous approval process. Space, instructional equipment, curriculum, record keeping, maintenance and quality of instruction are specified in the regulations. A certification team from the local FAA Flight Standards District Office (FSDO) will work with the school to ensure that all of the regulatory requirements are met.

After the certification takes place, the FSDO will continue to monitor the program for regulatory compliance. The certificate remains effective until it is surrendered, suspended or revoked by the FAA.

In order to maintain their certificates, schools must produce a number of graduates who can apply for their mechanic's certificates within 60 days, and pass the FAA written tests on first attempt within 24 months (14 CFR 147.38a).

Each school shall adhere to its approved curriculum, and with FAA approval, may teach subjects at levels exceeding those listed in the regulations.

Application

To apply for a certificate, a school must submit a description of the proposed curriculum; a list of the facilities and materials to be used; a list of instructors, including the kinds of certificates and ratings held, as well as certificate numbers; and a statement of the maximum amount of students it expects to teach at any one time. The facilities, equipment and materials specified must be in place before a certificate can be issued.

Review and Faculty

It may take several months for the FAA to review the curriculum and other materials and work with the school to ensure that all requirements have been met.

At least one certificated instructor must be provided for each 25 students in shop class. However, specialized instructors, who are not certificated mechanics, may be employed to teach mathematics, physics, basic electricity, basic hydraulics, drawing and similar subjects. The school is required to maintain a list of names and qualifications of specialized instructors, and provide this list to the FAA upon request.

Graduation Requirements

The curriculum must offer at least the following number of hours of instruction for the rating shown, and the instruction unit hour shall not more less than 50 minutes in length:

1. Airframe – 1,150 hours (400 general and 750 powerplant).
2. Powerplant – 1,150 hours (400 general plus 750 powerplant).
3. Combined Airframe and Powerplant – 1,900 hours (400 general plus 750 airrame and 750 powerplant).

The curriculum must cover a variety of basic subjects as listed in Appendices A, B and C of the regulations, including basic electricity, physics, mathematics, corrosion control, welding, assembly, landing gear systems, communications systems, instrument systems, fuel systems, instrument systems, electrical systems and others.

When all of the requirements have been met, the FAA will issue the school a certificate. Generally, the entire process, from application to review and inspection, takes six to 18 months.

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